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# Numerical proof of stability for finite difference schemes in a finite space domain

*jeudi 27 octobre 2022 09:00 (50 minutes)*

The goal of this talk is to study the stability of finite differences schemes for scalar hyperbolic initial boundary value problem. It is based on the GKS theory (introduced by Gustafsson, Kreiss and Sundström) and it deals with the Kreiss-Lopantinskii determinant. We will use complex analysis and geometric consideration to find zeros of this determinant and conclude on the stability of the scheme.

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